



(12) **EUROPEAN PATENT APPLICATION**

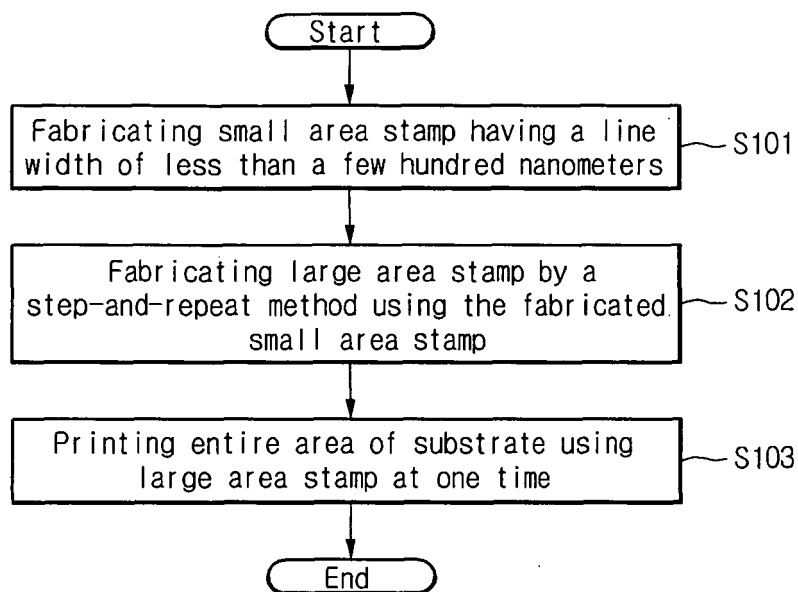
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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR LV MK YU</p> <p>(30) Priority: 16.01.2004 KR 2004003394</p> <p>(71) Applicant: LG ELECTRONICS INC. Seoul (KR)</p> | <p>(72) Inventor: Lee, Ki Dong 137-724 Seocho-gu, Seoul (KR)</p> <p>(74) Representative: Kruspig, Volkmar et al Meissner, Bolte & Partner GbR, Postfach 10 26 05 86016 Augsburg (DE)</p> |
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(54) **Method for manufacturing large area stamp for nanoimprint lithography**

(57) Provided is a method for manufacturing a large area stamp for nanoimprint lithography using a fabricated small area stamp. The method includes: fabricating a first small area stamp having a pattern less than a few hundred nanometers; and fabricating a second large area stamp having a pattern less than a few hundred nanometers by a step-and-repeat method using the fabricated first small area stamp.

FIG. 3





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 5 597 613 A (GALARNEAU ET AL) 28 January 1997 (1997-01-28)	10,14,15	G03F7/00 B29C59/02
Y	* column 1, lines 17,18 * * column 2, lines 31-33,52,53 * * column 3, lines 2,3 * * claims 1,11,12; figure 7 *	1,10	
Y	----- KHANG DAHL-YOUNG ET AL: "Wafer-scale sub-micron lithography" APPLIED PHYSICS LETTERS, AIP, AMERICAN INSTITUTE OF PHYSICS, MELVILLE, NY, US, vol. 75, no. 17, 25 October 1999 (1999-10-25), pages 2599-2601, XP012023828 ISSN: 0003-6951 * column 2, line 10 *	1,10	
A	----- US 2004/008334 A1 (SREENIVASAN SIDLGATA V ET AL) 15 January 2004 (2004-01-15) * paragraphs [0109], [0123], [0151] * * paragraphs [0154], [0155], [0157] * * paragraphs [0173], [0207] * * figures 23,24,34 *	1,2,4,6-8	TECHNICAL FIELDS SEARCHED (IPC) G03F B29C B81C
A	----- MCMACKIN I ET AL: "Design and performance of a step and repeat imprinting machine" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 5037, 2003, pages 178-186, XP002343365 ISSN: 0277-786X * page 178, lines 39,40 * * page 179, lines 13-21 * * page 180, line 5 * * figure 9 *	10,11,15	
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 December 2005	Examiner Pérennès, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	<p>HAATAINEN T ET AL: "STEP & STAMP IMPRINT LITHOGRAPHY USING A COMMERCIAL FLIP CHIP BONDER" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 3997, 28 February 2000 (2000-02-28), pages 874-880, XP001058907 ISSN: 0277-786X * page 874, lines 35-37 * * figures 1,5 *</p> <p style="text-align: center;">-----</p>	10,12	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 December 2005	Examiner Pérennès, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 00 0648

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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US 5597613	A	28-01-1997	NONE

US 2004008334	A1	15-01-2004	NONE

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82